In the Claims:

1. (Currently Amended) A control system for an automotive vehicle having a steering actuator comprising:

a lateral dynamic sensor generating a lateral dynamic signal corresponding to a condition of the vehicle;

a steering wheel angle sensor generating a steering wheel angle signal;

a road wheel steer angle sensor generating a road wheel angle signal;

a yaw rate sensor generating an actual yaw rate corresponding to the yaw rate of the vehicle; and

a controller coupled to the steering actuator, the lateral dynamic sensor and the steering wheel angle sensor, said controller determining a desired yaw rate in response to the steering wheel angle signal, determining a corrected steering wheel input as a function of the desired yaw rate, the actual yaw rate, [[and]] the condition and the road wheel angle sensor, determining a modified steering wheel input as a function of the desired yaw rate, and controlling the steering actuator in response to the corrected steering wheel ~~steering angle~~ input and, ~~the desired yaw rate and~~ the modified steering wheel input ~~and the road wheel angle sensor~~.

2. (Original) A system as recited in claim 1 wherein said steering actuator comprises a front right wheel actuator and a front left wheel actuator.

3. (Original) A system as recited in claim 2 wherein said front right wheel steering actuator and said front left steering actuator are independently controllable.

4. (Currently Amended) A system as recited in claim 3 wherein said controller generates a front right control signal and a front left control signal in response to the corrected steering wheel input, ~~the condition~~ and the modified steering wheel input.

5. (Currently Amended) A system as recited in claim 1 wherein the lateral dynamic sensor comprises ~~further comprising~~ a lateral acceleration sensor generating a lateral acceleration signal, said system further comprising a speed sensor generating a vehicle speed signal, said controller determining [[a]] the corrected steering wheel input as a function of the desired yaw rate, [[and]] the vehicle condition, the lateral acceleration signal and the vehicle speed signal.

6. (Original) A system as recited in claim 1 wherein said steering actuator comprises a rear steering actuator and a front steering actuator.

7. (Currently Amended) A system as recited in claim 1 wherein said controller determines a rear steering control signal in response to the corrected steering wheel input~~, the yaw rate~~ and the modified steering wheel input.

8. (Currently Amended) A method of controlling a vehicle having a steering actuator comprising:

measuring a steering wheel angle from a steering wheel angle sensor;

measuring a steering actuator position from a road wheel position sensor;

measuring an actual yaw rate;

determining a desired yaw rate in response to the steering wheel angle;

determining a modified steering wheel input in response to the desired yaw rate;

measuring a vehicle lateral dynamic condition from a condition sensor;

determining a corrected steering wheel input as a function of the desired yaw rate, the actual yaw rate, [[and]] the lateral dynamic condition and the steering actuator position; and

controlling the steering actuator in response to the corrected steering wheel input~~, the lateral dynamic condition~~ and the modified steering wheel input.

9. (Currently Amended) A method as recited in claim 8 further comprising generating a lateral acceleration signal from [[a]] the condition ~~lateral acceleration~~ sensor, generating a vehicle speed signal from a speed sensor, wherein determining a corrected steering wheel input comprises determining a corrected steering input as a function of the desired yaw rate, the actual yaw rate ~~and the lateral dynamic condition~~, the lateral acceleration signal, ~~the desired yaw rate,~~ and the vehicle speed signal.

10. (Currently Amended) A method as recited in claim 8 wherein controlling the steering actuator comprises controlling a front steering actuator in response to the corrected steering wheel input, ~~the lateral dynamic condition, the desired yaw rate,~~ and the modified steering wheel input.

11. (Currently Amended) A method as recited in claim 8 wherein controlling the steering actuator comprises controlling a rear steering actuator in response to the corrected steering wheel input, ~~the lateral dynamic condition, the desired yaw rate,~~ and the modified steering wheel input.

12. (Currently Amended) A method as recited in claim 8 wherein controlling the steering actuator comprises controlling a front right steering actuator in response to the corrected steering wheel input, ~~the lateral dynamic condition, the desired yaw rate,~~ and the modified steering wheel input.

13. (Currently Amended) A method as recited in claim 8 wherein controlling the steering actuator comprises controlling a front left steering actuator in response to the corrected steering wheel input, ~~the lateral dynamic condition, the desired yaw rate,~~ and the modified steering wheel input.

14. (Original) A method of controlling a vehicle having a steering actuator comprising:

measuring a steering wheel angle from a steering wheel angle sensor;

determining a desired yaw rate in response to the steering wheel angle;

determining a modified steering wheel input in response to the desired yaw rate;

measuring a vehicle yaw rate from a yaw rate sensor;

determining a yaw rate error as a function of the desired yaw rate and the vehicle yaw rate;

determining a corrected steering wheel input in response to the yaw rate error;

determining a steering actuator input as a function of the corrected steering wheel input and the modified steering wheel input; and

controlling the steering actuator in response to the steering actuator input.

15. (Currently Amended) A method as recited in claim 14 further comprising generating a lateral acceleration signal from a lateral acceleration sensor, generating a vehicle speed signal from a speed sensor, wherein determining a corrected steering wheel input comprises determining a corrected steering input as a function of the desired yaw rate and the vehicle yaw rate, the lateral acceleration signal and the vehicle speed signal ~~and other inputs~~.

16. (Currently Amended) A method as recited in claim 14 wherein controlling the steering actuator comprises controlling a front steering actuator in response to the corrected ~~steer angle~~ steering wheel input~~, the vehicle yaw rate~~ and the modified steering wheel input.

17. (Currently Amended) A method as recited in claim 14 wherein controlling the steering actuator comprises controlling a rear steering actuator in response to the corrected steer angle input~~, the vehicle yaw rate~~ and the modified steering wheel input.

18. (Currently Amended) A method as recited in claim 14 wherein controlling the steering actuator comprises controlling a front right steering actuator in response to the corrected steering wheel input~~, the vehicle yaw rate~~ and the modified steering wheel input.

19. (Currently Amended) A method as recited in claim 14 wherein controlling the steering actuator comprises controlling a front left steering actuator in response to the corrected steering wheel input~~, the vehicle yaw rate~~ and the modified steering wheel input.

20. (Currently Amended) A method as recited in claim 14 wherein controlling the steering actuator comprises controlling a rear left steering actuator in response to the corrected steering wheel input~~, the vehicle yaw rate~~ and the modified steering wheel input.

21. (Currently Amended) A method as recited in claim 14 wherein controlling the steering actuator comprises controlling a rear right steering actuator in response to the corrected steering wheel input~~, the vehicle yaw rate~~ and the modified steering wheel input.

22. (Currently Amended) An automotive vehicle having a steering road wheel actuator comprises:

a yaw rate sensor generating a yaw rate signal corresponding to the actual yaw rate of the vehicle;

a steering wheel angle sensor generating a steering wheel angle signal;

a feedback controller and a feed forward controller coupled to the steering road wheel actuator using inputs from the yaw rate sensor and the steering wheel angle sensor, the feed forward controller calculates a desired yaw rate in response to the steering wheel angle, ~~and the feedback controller determines a corrected steering wheel input as a function of the desired yaw rate,~~ the feedback controller [[then]] compares the actual ~~desired vehicle~~ yaw rate and a desired yaw rate to form a yaw rate error, determines a corrected steering wheel input as a function of the yaw rate error, [[and]] the feedback controller controls the road wheel steering

actuator in response to the corrected steering wheel input, ~~the yaw rate~~ and the modified steering wheel input determined as a function of the desired yaw rate to provide a steering angle that will result in a desired vehicle dynamic response.

23. (New) A method as recited in claim 14 further comprising feeding forward the desired yaw rate to form a feed forward desired yaw rate and wherein determining a yaw rate error comprises determining the yaw rate error in response to the feed forward desired yaw rate and the vehicle yaw rate.